

DeMaria, Eva

From: Craig Heimbucher <cheimbucher@integral-corp.com>
Sent: Friday, August 07, 2015 12:10 PM
To: SUTTER Jennifer
Cc: Drew Gilpin (Drew.Gilpin@evrazna.com); Debbie Deetz Silva (Debbie.Deetz.Silva@evrazna.com); SUTTER Jennifer (jennifer.sutter@state.or.us); Linda Baker; Mike Byers (mike.byers@creteconsulting.com); Jane Sund; DeMaria, Eva; Sheldrake, Sean; PETERSON Jenn L; poulsen.mike@deq.state.or.us; Jamie Stevens (jamie.stevens@creteconsulting.com)
Subject: RE: EVRAZ riverbank import material analytical data table
Attachments: Import Analytical Results Table_updated20150807.xlsx; A5G0329-Dioxins_Daybreak Beach Comp.pdf; A5G0664-Dioxins_OwlCreek_Berm_Comp.pdf; A5G0329 DRAFT 07 31 15 Daybreak Beach Comp.pdf; A5G0664 DRAFT 07 29 15 Owl Creek_berm_comp.pdf; Attachment A_Berm Material (Owl Creek) Sampling Procedures.pdf

Jennifer,

We have received the dioxin/furan (D/F) data for the Owl Creek berm backfill and the Daybreak beach backfill. The Daybreak beach backfill meets all of the import criteria. We plan to continue with import of the Daybreak beach fill material next week.

The Owl Creek berm backfill sample met all the import criteria except for Octa-chlorinated dioxin, which slightly exceeded import criteria. The sample result is 5.3 pg/g, while the import criteria is 5.0 pg/g. Octa CDD is the least toxic congener (i.e., least TCDD-like), with a 2005 mammalian toxicity equivalency factor of 0.0003.

The updated table is attached, along with the lab reports.

I have also addressed your questions below, with the exception of the source information on the Owl Creek berm material. I'll get that information to you as soon as we get it from the supplier.

1. Laboratory sheets with QA documentation for results that have not already been provided are attached. These include results from the Owl Creek berm backfill and the Daybreak beach backfill composite samples. For the draft lab reports, I'll provide you the final when I receive them. Please let me know if you are missing anything else.
2. Description of fill sources.

a. Beach backfill –

Sample IDs: Daybreak G-109 Beach Backfill; BB-S Comp; BB-C Comp; BB-N Comp; BB-Total Comp

Intended use: backfill in beach removals

Source: excavated from a gravel pit (the daybreak pit) in the east fork of the Lewis River valley. The pit location is about 1,000 to 2,000 ft from the river.

b. Bank backfill (1-1/2 inch minus crushed) –

Sample IDs: Livingston G-121 ODOT 1 1/2"; Livingston G-121 ODOT 1 1/2"E Comp; Livingston G-121 ODOT 1 1/2"E Comp; Livingston G-121 ODOT 1 1/2"E Comp

Intended use: to be placed between the geofabric and the rock armor

Source: starts out as monolithic basalt on Livingston mountain outside of Vancouver. It is blasted to car-size chunks, reduced to smaller sizes using hydraulic breakers and then sent through a crusher to result in the required grain size. Again, material is currently in a stockpile.

c. **Preferred Berm backfill (Owl Creek)-**

Sample ID: OWL CREEK BF

Intended use: subgrade in berm removal areas, within soil wraps and located below 1-foot of topsoil

Source: to be provided

3. Summary of sample collection procedures:

Owl Creek Berm Backfill - See Attachment A

Composite beach backfill and bank backfill samples were collected by Mr. Terry Rice of Columbia West Engineering. The following is a description of composite sample collection procedures provided by Mr. Rice for the 1-1/2" minus crushed rock bank backfill. Mr. Rice confirmed that the same procedures were followed for the beach backfill composite samples:

Samples were collected with the following basic method. There was approximately 2,500 cy of subject material at the Livingston Pit. The storage pile was divided into three sections (with sample name extensions: EComp = East composite, CComp = Center composite, and WComp = West composite). The loader operator cut into the piles at several locations at approximately 3' above ground surface, backed out and dumped the load. Samples were taken from the pile into the "cut in" location or were collected from 6" to 12" inches below surface with a shovel and hand spade. Each section composite sample contained a discrete sample from 5 different locations for a 5 point composite. Samples from each of the five locations were mixed and rock exceeding approximately 0.75" was discarded. The composite sample was placed in sample jar container, labeled, stored in a cooler, and a chain of Custody was completed and samples were delivered to Apex Laboratories in Tigard, Oregon for analysis. Apex delivered samples to Maxxam Analytics International in Ontario, Canada for analysis of dioxins/furans.

4. D/F results are included in the data summary table. The mammalian dioxin TEQ value is included in the All Data sheet for all samples analyzed for D/F. In addition, bird and fish TEQ values are included in the table for the Owl Creek berm backfill sample that slightly exceeded import criteria for Octa CDD.

As stated above, we plan to import the Daybreak beach backfill next week. The Owl Creek berm backfill is the second of two sources tested, and we believe this is the preferred material based on the analytical results. We would like to move forward with import of the Owl Creek berm backfill next week if possible, but will need your approval. Please provide us with feedback on the Owl Creek berm backfill results at your earliest convenience.

Let me know if you have any additional questions.

Thanks,

Craig Heimbucher

Direct: 503.943.3629 | Cell: 503.419.7949

From: SUTTER Jennifer [mailto:SUTTER.Jennifer@deq.state.or.us]

Sent: Thursday, August 06, 2015 3:46 PM

To: Craig Heimbucher

Cc: Drew Gilpin (Drew.Gilpin@evrazna.com); Debbie Deetz Silva (Debbie.Deetz.Silva@evrazna.com); SUTTER Jennifer (jennifer.sutter@state.or.us); Linda Baker; Mike Byers (mike.byers@creteconsulting.com); Jane Sund;

DeMaria.Eva@epa.gov; sheldrake.sean@epa.gov; PETERSON Jenn L; POULSEN Mike

Subject: RE: EVRAZ riverbank import material analytical data table

Thanks Craig

The summary data look good.

Please provide the following:

1. Laboratory sheets with QA documentation for results for which this has not already been provided.
2. Description of fill sources.
3. Summary of sample collection procedures.
4. For dioxin results, include dioxin TEQ values (fish, bird, mammal) in the data summary, at a minimum for any samples where congeners were detected above the import criteria.

I will be out of the office tomorrow and won't be able to check my email until late in the day. I will take a look at whatever is sent over the weekend, however. It is possible that Mike Poulsen and Jennifer Peterson will be able to look at the dioxin data tomorrow (they are in a meeting all day however) so please send the data to them as well.

Feel free to call if you have any questions.

Jennifer Sutter

Project Manager, DEQ NWR Cleanup and Tanks

700 NE Multnomah St., Suite #600,

Portland, OR 97232.

(503) 229-6148

From: Craig Heimbucher [<mailto:cheimbucher@integral-corp.com>]

Sent: Thursday, August 06, 2015 2:33 PM

To: SUTTER Jennifer (jennifer.sutter@state.or.us); DeMaria.Eva@epa.gov; sheldrake.sean@epa.gov

Cc: Drew Gilpin (Drew.Gilpin@evrazna.com); Debbie Deetz Silva (Debbie.Deetz.Silva@evrazna.com); Linda Baker; Mike Byers (mike.byers@creteconsulting.com); Jane Sund

Subject: EVRAZ riverbank import material analytical data table

Jennifer, Eva, Sean,

Attached is a spreadsheet summarizing the EVRAZ riverbank import material chemistry data we have collected to date for beach, berm and bank import material. We are still waiting on dioxin/furan results for the Owl Creek berm fill and the BB-Total beach backfill composite samples. We expect results today or tomorrow and will send you the results as soon as we receive them.

All recent analytical for the beach backfill (BB-Total Comp) and berm backfill (Owl Creek BF) are below the import criteria. In order to keep the project moving forward, we would greatly appreciate your feedback within a few hours of receiving the dioxin/furan data. Ideally we'd like to let the contractor know if they can begin importing berm and beach material by Monday.

Let me know if you have any questions or comments on the attached tables.

Thanks,

Craig Heimbucher, P.E. | Senior Engineer

Integral Consulting Inc. | www.integral-corp.com

319 SW Washington St. Suite 1150 | Portland, OR 97204

Tel: 503.284.5545 ext 629 | Direct: 503.943.3629 | Cell: 503.419.7949 | Fax: 503.284.5755

HEALTH **ENVIRONMENT** **TECHNOLOGY** **SUSTAINABILITY**